

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Baker et al. Serial No.: Not yet assigned Filed: Herewith For: <i>Secreted and Transmembrane Polypeptides and Nucleic Acids Encoding the Same</i>	Group Art Unit: Not yet assigned Examiner: Not yet assigned
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**REQUEST TO USE COMPUTER READABLE FORM OF SEQUENCE LISTING
FROM PARENT APPLICATION PURSUANT TO 37 C.F.R. § 1.821 (e)**

Assistant Commissioner of Patents
Washington, D.C. 20231

Sir:

The patent application filed herewith is a continuing application of currently pending application Serial No. 09/866,028, filed on May 25, 2001. The Sequence Listings in (a) the herewith filed patent application and (2) currently pending patent application Serial No. 09/866,028, filed on May 25, 2001, are identical. Therefore, pursuant to 37 C.F.R. § 1.821(e), Applicants respectfully request that the compliant computer readable form of the Sequence Listing filed on May 25, 2001 in parent application Serial No. 09/866,028 be used as the computer readable form for the herewith filed patent application. The paper copy of the Sequence Listing submitted herewith

Serial No.: Not yet assigned

Filed: Herewith

is identical to that on the compliant computer readable form of the Sequence Listing filed on May 25, 2001 in parent application Serial No. 09/866,028.

Respectfully submitted,

GENENTECH, INC.

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Elizabeth M. Barnes, Ph.D.
Reg. No. 35,059
Telephone: (650) 225-4563



09157

PATENT TRADEMARK OFFICE

0915780 082001

Sequence Listing

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Botstein, David
Eaton, Dan
Ferrara, Napoleone
Filvaroff, Ellen
Gerritsen, Mary
Goddard, Audrey
Godowski, Paul
Grimaldi, Christopher
Gurney, Austin
Hillan, Kenneth
Kljavin, Ivar
Napier, Mary
Roy, Margaret
Tumas, Daniel
Wood, William

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06/24/2010

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<210> 15

<211> 737

<212> PRT

<213> Homo Sapien

<400> 15

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20 25 30

Ser Ser Leu Ala Asn Pro Val Pro Ala Ala Pro Leu Ser Ala Pro
35 40 45

Gly Pro Cys Ala Ala Gln Pro Cys Arg Asn Gly Gly Val Cys Thr
50 55 60

Ser Arg Pro Glu Pro Asp Pro Gln His Pro Ala Pro Ala Gly Glu
65 70 75

Pro Gly Tyr Ser Cys Thr Cys Pro Ala Gly Ile Ser Gly Ala Asn
80 85 90

Cys Gln Leu Val Ala Asp Pro Cys Ala Ser Asn Pro Cys His His
95 100 105

Gly Asn Cys Ser Ser Ser Ser Ser Ser Asp Gly Tyr Leu

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140	145	150
Arg Gln Leu Gln Pro Val Pro Ala Thr	Gln Glu Pro Asp Lys Ile	
155	160	165
Leu Pro Arg Ser Gln Ala Thr Val Thr	Leu Pro Thr Trp Gln Pro	
170	175	180
Lys Thr Gly Gln Lys Val Val Glu Met	Lys Trp Asp Gln Val Glu	
185	190	195
Val Ile Pro Asp Ile Ala Cys Gly Asn	Ala Ser Ser Asn Ser Ser	
200	205	210
Ala Gly Gly Arg Leu Val Ser Phe Glu	Val Pro Gln Asn Thr Ser	
215	220	225
Val Lys Ile Arg Gln Asp Ala Thr Ala	Ser Leu Ile Leu Leu Trp	
230	235	240
Lys Val Thr Ala Thr Gly Phe Gln Gln	Cys Ser Leu Ile Asp Gly	
245	250	255
Arg Ser Val Thr Pro Leu Gln Ala Ser	Gly Gly Leu Val Leu Leu	
260	265	270
Glu Glu Met Leu Ala Leu Gly Asn Asn	His Phe Ile Gly Phe Val	
275	280	285
Asn Asp Ser Val Thr Lys Ser Ile Val	Ala Leu Arg Leu Thr Leu	
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Val Val Lys Val Ser Thr Cys Val Pro	Gly Glu Ser His Ala Asn	
305	310	315
Asp Leu Glu Cys Ser Gly Lys Gly Lys	Cys Thr Thr Lys Pro Ser	
320	325	330
Glu Ala Thr Phe Ser Cys Thr Cys Glu	Glu Gln Tyr Val Gly Thr	
335	340	345
Phe Cys Glu Glu Tyr Asp Ala Cys Gln	Arg Lys Pro Cys Gln Asn	
350	355	360
Asn Ala Ser Cys Ile Asp Ala Asn Glu	Lys Gln Asp Gly Ser Asn	
365	370	375
Phe Thr Cys Val Cys Leu Pro Gly Tyr	Thr Gly Glu Leu Cys Gln	
380	385	390
Ser Lys Ile Asp Tyr Cys Ile Leu Asp	Pro Cys Arg Asn Gly Ala	
395	400	405

Thr Cys Ile Ser Ser Leu Ser Gly Phe Thr Cys Gln Cys Pro Glu
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Gly Tyr Phe Gly Ser Ala Cys Glu Glu Lys Val Asp Pro Cys Ala
425 430 435
Ser Ser Pro Cys Gln Asn Asn Gly Thr Cys Tyr Val Asp Gly Val
440 445 450
His Phe Thr Cys Asn Cys Ser Pro Gly Phe Thr Gly Pro Thr Cys
455 460 465
Ala Gln Leu Ile Asp Phe Cys Ala Leu Ser Pro Cys Ala His Gly
470 475 480
Thr Cys Arg Ser Val Gly Thr Ser Tyr Lys Cys Leu Cys Asp Pro
485 490 495
Gly Tyr His Gly Leu Tyr Cys Glu Glu Glu Tyr Asn Glu Cys Leu
500 505 510
Ser Ala Pro Cys Leu Asn Ala Ala Thr Cys Arg Asp Leu Val Asn
515 520 525
Gly Tyr Glu Cys Val Cys Leu Ala Glu Tyr Lys Gly Thr His Cys
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Glu Leu Tyr Lys Asp Pro Cys Ala Asn Val Ser Cys Leu Asn Gly
545 550 555
Ala Thr Cys Asp Ser Asp Gly Leu Asn Gly Thr Cys Ile Cys Ala
560 565 570
Pro Gly Phe Thr Gly Glu Glu Cys Asp Ile Asp Ile Asn Glu Cys
575 580 585
Asp Ser Asn Pro Cys His His Gly Gly Ser Cys Leu Asp Gln Pro
590 595 600
Asn Gly Tyr Asn Cys His Cys Pro His Gly Trp Val Gly Ala Asn
605 610 615
Cys Glu Ile His Leu Gln Trp Lys Ser Gly His Met Ala Glu Ser
620 625 630
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635 640 645
Leu Cys Val Ala Phe Ile Leu Met Leu Ile Ile Leu Ile Val Gly
650 655 660
Ile Cys Arg Ile Ser Arg Ile Glu Tyr Gln Gly Ser Ser Arg Pro
665 670 675
Ala Tyr Glu Glu Phe Tyr Asn Cys Arg Ser Ile Asp Ser Glu Phe
680 685 690
Ser Asn Ala Ile Ala Ser Ile Arg His Ala Arg Phe Gly Lys Lys

695

700

705

Ser Arg Pro Ala Met Tyr Asp Val Ser Pro Ile Ala Tyr Glu Asp
710 715 720

Tyr Ser Pro Asp Asp Lys Pro Leu Val Thr Leu Ile Lys Thr Lys
725 730 735

Asp Leu

<210> 16

<211> 43

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 16

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<210> 17

<211> 41

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 17

caggaaacacag ctatgaccac ctgcacacacct gcaaatccat t 41

<210> 18

<211> 508

<212> DNA

<213> Homo Sapien

<400> 18

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aggagatgct cgccttgggg aataatcaact ttattggttt tgtgaatgat 150

tctgtgacta agtctattgt ggctttgcgc ttaactctgg tggtaaggt 200

cagcacctgt gtgcgggggg agagtcacgc aaatgacttg gagtgttcag 250

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tgtgaggagc agtacgtggg tactttctgt gaagaatacg atgcttgcca 350

gagggaaacct tgccaaaaca acgcgagctg tattgatgca aatgaaaagc 400

aagatgggag caatttcacc tgtgtttgcc ttccctggta tactggagag 450

cttgcacac cgaactgaga ttggagcgaa cgacctacac cgaactgaga 500

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taggggag 508

<210> 19
<211> 508
<212> DNA
<213> Homo Sapien

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tctgtgacta agtctattgt ggcttgcgc ttaactctgg tggtaaggt 200
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aagatgggag caatttcacc tgtgtttgcc ttccctggta tactggagag 450
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taggggag 508

<210> 20
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 20
ctctggagg tcacggccac agg 23

<210> 21
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 21
ctcagttcggttggcaaagc tctc 24

<210> 22
<211> 69
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 22

cagtgcctcc tcatacatgg acgaaagtgt gaccccccctt tcaggcgaga 50
gctttgccaa ccgaactga 69

<210> 23

<211> 1520

<212> DNA

<213> Homo Sapien

<400> 23

gctgagtcgt ctgcctctgc tgctgctgtt ccagcctgtt acctgtgcct 50
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gccccacacca tgccgggcac ctacgctccc tcgaccacac tcagtagtcc 150
cagcacccag ggcctgcaag agcaggcactg ggcctgtatg cggtacttcc 200
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<210> 24
<211> 433
<212> PRT
<213> Homo Sapien

<400> 24
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Pro Leu Val Asp Gly His Asn Asp Leu Pro Leu Val Leu Arg Gln
35 40 45
Val Tyr Gln Lys Gly Leu Gln Asp Val Asn Leu Arg Asn Phe Ser
50 55 60
Tyr Gly Gln Thr Ser Leu Asp Arg Leu Arg Asp Gly Leu Val Gly
65 70 75
Ala Gln Phe Trp Ser Ala Tyr Val Pro Cys Gln Thr Gln Asp Arg
80 85 90
Asp Ala Leu Arg Leu Thr Leu Glu Gln Ile Asp Leu Ile Arg Arg
95 100 105
Met Cys Ala Ser Tyr Ser Glu Leu Glu Leu Val Thr Ser Ala Lys
110 115 120
Ala Leu Asn Asp Thr Gln Lys Leu Ala Cys Leu Ile Gly Val Glu
125 130 135
Gly Gly His Ser Leu Asp Asn Ser Leu Ser Ile Leu Arg Thr Phe
140 145 150
Tyr Met Leu Gly Val Arg Tyr Leu Thr Leu Thr His Thr Cys Asn
155 160 165
Thr Pro Trp Ala Glu Ser Ser Ala Lys Gly Val His Ser Phe Tyr
170 175 180

Asn Asn Ile Ser Gly Leu Thr Asp Phe Gly Glu Lys Val Val Ala
185 190 195
Glu Met Asn Arg Leu Gly Met Met Val Asp Leu Ser His Val Ser
200 205 210
Asp Ala Val Ala Arg Arg Ala Leu Glu Val Ser Gln Ala Pro Val
215 220 225
Ile Phe Ser His Ser Ala Ala Arg Gly Val Cys Asn Ser Ala Arg
230 235 240
Asn Val Pro Asp Asp Ile Leu Gln Leu Leu Lys Lys Asn Gly Gly
245 250 255
Val Val Met Val Ser Leu Ser Met Gly Val Ile Gln Cys Asn Pro
260 265 270
Ser Ala Asn Val Ser Thr Val Ala Asp His Phe Asp His Ile Lys
275 280 285
Ala Val Ile Gly Ser Lys Phe Ile Gly Ile Gly Gly Asp Tyr Asp
290 295 300
Gly Ala Gly Lys Phe Pro Gln Gly Leu Glu Asp Val Ser Thr Tyr
305 310 315
Pro Val Leu Ile Glu Glu Leu Leu Ser Arg Gly Trp Ser Glu Glu
320 325 330
Glu Leu Gln Gly Val Leu Arg Gly Asn Leu Leu Arg Val Phe Arg
335 340 345
Gln Val Glu Lys Val Gln Glu Glu Asn Lys Trp Gln Ser Pro Leu
350 355 360
Glu Asp Lys Phe Pro Asp Glu Gln Leu Ser Ser Ser Cys His Ser
365 370 375
Asp Leu Ser Arg Leu Arg Gln Arg Gln Ser Leu Thr Ser Gly Gln
380 385 390
Glu Leu Thr Glu Ile Pro Ile His Trp Thr Ala Lys Leu Pro Ala
395 400 405
Lys Trp Ser Val Ser Glu Ser Ser Pro His Met Ala Pro Val Leu
410 415 420
Ala Val Val Ala Thr Phe Pro Val Leu Ile Leu Trp Leu
425 430

<210> 25
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

TOESE30"08/24/96 50

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<210> 26
<211> 24
<212> DNA
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<220>
<223> Synthetic oligonucleotide probe

<400> 26
cgtgatggtg tctttgtcca tggg 24

<210> 27
<211> 24
<212> DNA
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<220>
<223> Synthetic oligonucleotide probe

<400> 27
ctccaccaat cccgatgaac ttgg 24

<210> 28
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
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<400> 28
gagcagattg acctcatacg ccgcattgtgt gcctcctatt ctgagctgga 50

<210> 29
<211> 1416
<212> DNA
<213> Homo Sapien

<400> 29
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cgaccacact cagtagtccc agcacccagg gcctgcaaga gcaggcacgg 150
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aaaacccaag gacacc 1416

<210> 30
<211> 446
<212> PRT
<213> Homo Sapien

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Pro Leu Val Asp Gly His Asn Asp Leu Pro Leu Val Leu Arg Gln
35 40 45
Val Tyr Gln Lys Gly Leu Gln Asp Val Asn Leu Arg Asn Phe Ser

50

55

60

Tyr Gly Gln Thr Ser Leu Asp Arg Leu Arg Asp Gly Leu Val Gly
 65 70 75

Ala Gln Phe Trp Ser Ala Tyr Val Pro Cys Gln Thr Gln Asp Arg
 80 85 90

Asp Ala Leu Arg Leu Thr Leu Glu Gln Ile Asp Leu Ile Arg Arg
 95 100 105

Met Cys Ala Ser Tyr Ser Glu Leu Glu Leu Val Thr Ser Ala Lys
 110 115 120

Ala Leu Asn Asp Thr Gln Lys Leu Ala Cys Leu Ile Gly Val Glu
 125 130 135

Gly Gly His Ser Leu Asp Asn Ser Leu Ser Ile Leu Arg Thr Phe
 140 145 150

Tyr Met Leu Gly Val Arg Tyr Leu Thr Leu Thr His Thr Cys Asn
 155 160 165

Thr Pro Trp Ala Glu Ser Ser Ala Lys Gly Val His Ser Phe Tyr
 170 175 180

Asn Asn Ile Ser Gly Leu Thr Asp Phe Gly Glu Lys Val Val Ala
 185 190 195

Glu Met Asn Arg Leu Gly Met Met Val Asp Leu Ser His Val Ser
 200 205 210

Asp Ala Val Ala Arg Arg Ala Leu Glu Val Ser Gln Ala Pro Val
 215 220 225

Ile Phe Ser His Ser Ala Ala Arg Gly Val Cys Asn Ser Ala Arg
 230 235 240

Asn Val Pro Asp Asp Ile Leu Gln Leu Leu Lys Lys Asn Gly Gly
 245 250 255

Val Val Met Val Ser Leu Ser Met Gly Val Ile Gln Cys Asn Pro
 260 265 270

Ser Ala Asn Val Ser Thr Val Ala Asp His Phe Asp His Ile Lys
 275 280 285

Ala Val Ile Gly Ser Lys Phe Ile Gly Ile Gly Gly Asp Tyr Asp
 290 295 300

Gly Ala Gly Lys Phe Pro Gln Gly Leu Glu Asp Val Ser Thr Tyr
 305 310 315

Pro Val Leu Ile Glu Glu Leu Leu Ser Arg Gly Trp Ser Glu Glu
 320 325 330

Glu Leu Gln Gly Val Leu Arg Gly Asn Leu Leu Arg Val Phe Arg
 335 340 345

Gln Val Glu Lys Val Gln Glu Glu Asn Lys Trp Gln Ser Pro Leu
350 355 360
Glu Asp Lys Phe Pro Asp Glu Gln Leu Ser Ser Ser Cys His Ser
365 370 375
Asp Leu Ser Arg Leu Arg Gln Arg Gln Ser Leu Thr Ser Gly Gln
380 385 390
Glu Leu Thr Glu Ile Pro Ile His Trp Thr Ala Lys Leu Pro Ala
395 400 405
Lys Trp Ser Val Ser Glu Ser Ser Pro His Pro Asp Lys Thr His
410 415 420
Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser
425 430 435
Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
440 445

<210> 31
<211> 1790
<212> DNA
<213> Homo Sapien

<400> 31
cgcccaagcga cgtgcggggcg gcctggcccg cgccctcccg cgcccgccct 50
gctgtcccgcg ccctgcgcca ccgcgcgcga gccgcagccc gccgcgcgc 100
cccgccagcg ccggccccat gcccgcgcgc cgccggggcc ccgcgcgc 150
atccgcgcgg cggccgcgc cgttgctgcc cctgctgctg ctgctctgcg 200
tcctcggggc gccgcgagcc ggatcaggag cccacacagc tgtgatcagt 250
ccccaggatc ccacgcttct catcggtctcc tccctgctgg ccacctgctc 300
agtgcacgga gacccaccag gagccaccgc cgagggcctc tactggaccc 350
tcaacgggcg ccgcctgccc cctgagctct cccgtgtact caacgcctcc 400
accttggctc tggccctggc caacctaattt gggcccgccg agcggtcg 450
ggacaacctc gtgtgccacg cccgtgacgg cagcatcctg gctggctcc 500
gcctctatgt tggccctgccc ccagagaaac ccgtcaacat cagctgctgg 550
tccaagaaca tgaaggactt gacctgccgc tggacgcccgg gggcccacgg 600
ggagaccttc ctccacacca actactccctt caagtacaag ctttaggtgg 650
atggccagga caacacatgt gaggagtacc acacagtggg gccccactcc 700
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ggaggccacc aaccgcctgg gctctgcccgg ctccgatgtta ctcacgctgg 800

atatcctgga tgtggtgacc acggacccccc cgcccgacgt gcacgtgagc 850
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tggaggacag tgtggactgg aaggtggtgg acgatgtgag caaccagacc 1000
tcctgcccgc tggccggcct gaaacccggc accgtgtact tcgtgcaagt 1050
gcgcgtcaac cccttggca tctatggctc caagaaagcc gggatctgga 1100
gtgagtgagg ccacccaca gcccctcca ctcccccgcag tgagcgcccg 1150
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gaggccaccc ttgggtgcac cccagtgggt gtgtgtgtgt gtgtgagggt 1600
tggtttagtt gcctagaacc cctgccaggg ctgggggtga gaaggggagt 1650
cattactccc cattacctag ggccctcca aaagagtctt tttaaataaa 1700
tgagctattt aggtgctgtg attgtgaaaa aaaaaaaaaa aaaaaaaaaa 1750
aaaaaaaaaa aaaaaaaaaa aaaaacaaaa aaaaaaaaaa 1790

<210> 32
<211> 422
<212> PRT
<213> Homo Sapien

<400> 32
Met Pro Ala Gly Arg Arg Gly Pro Ala Ala Gln Ser Ala Arg Arg
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Pro Pro Pro Leu Leu Pro Leu Leu Leu Leu Cys Val Leu Gly
20 25 30
Ala Pro Arg Ala Gly Ser Gly Ala His Thr Ala Val Ile Ser Pro
35 40 45
Gln Asp Pro Thr Leu Leu Ile Gly Ser Ser Leu Leu Ala Thr Cys
50 55 60

Ser Val His Gly Asp Pro Pro Gly Ala Thr Ala Glu Gly Leu Tyr
 65 70 75
 Trp Thr Leu Asn Gly Arg Arg Leu Pro Pro Glu Leu Ser Arg Val
 80 85 90
 Leu Asn Ala Ser Thr Leu Ala Leu Ala Leu Ala Asn Leu Asn Gly
 95 100 105
 Ser Arg Gln Arg Ser Gly Asp Asn Leu Val Cys His Ala Arg Asp
 110 115 120
 Gly Ser Ile Leu Ala Gly Ser Cys Leu Tyr Val Gly Leu Pro Pro
 125 130 135
 Glu Lys Pro Val Asn Ile Ser Cys Trp Ser Lys Asn Met Lys Asp
 140 145 150
 Leu Thr Cys Arg Trp Thr Pro Gly Ala His Gly Glu Thr Phe Leu
 155 160 165
 His Thr Asn Tyr Ser Leu Lys Tyr Lys Leu Arg Trp Tyr Gly Gln
 170 175 180
 Asp Asn Thr Cys Glu Glu Tyr His Thr Val Gly Pro His Ser Cys
 185 190 195
 His Ile Pro Lys Asp Leu Ala Leu Phe Thr Pro Tyr Glu Ile Trp
 200 205 210
 Val Glu Ala Thr Asn Arg Leu Gly Ser Ala Arg Ser Asp Val Leu
 215 220 225
 Thr Leu Asp Ile Leu Asp Val Val Thr Thr Asp Pro Pro Pro Asp
 230 235 240
 Val His Val Ser Arg Val Gly Gly Leu Glu Asp Gln Leu Ser Val
 245 250 255
 Arg Trp Val Ser Pro Pro Ala Leu Lys Asp Phe Leu Phe Gln Ala
 260 265 270
 Lys Tyr Gln Ile Arg Tyr Arg Val Glu Asp Ser Val Asp Trp Lys
 275 280 285
 Val Val Asp Asp Val Ser Asn Gln Thr Ser Cys Arg Leu Ala Gly
 290 295 300
 Leu Lys Pro Gly Thr Val Tyr Phe Val Gln Val Arg Cys Asn Pro
 305 310 315
 Phe Gly Ile Tyr Gly Ser Lys Lys Ala Gly Ile Trp Ser Glu Trp
 320 325 330
 Ser His Pro Thr Ala Ala Ser Thr Pro Arg Ser Glu Arg Pro Gly
 335 340 345
 Pro Gly Gly Gly Ala Cys Glu Pro Arg Gly Gly Glu Pro Ser Ser

350 355 360
Gly Pro Val Arg Arg Glu Leu Lys Gln Phe Leu Gly Trp Leu Lys
365 370 375
Lys His Ala Tyr Cys Ser Asn Leu Ser Phe Arg Leu Tyr Asp Gln
380 385 390
Trp Arg Ala Trp Met Gln Lys Ser His Lys Thr Arg Asn Gln Asp
395 400 405
Glu Gly Ile Leu Pro Ser Gly Arg Arg Gly Thr Ala Arg Gly Pro
410 415 420

Ala Arg

<210> 33
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 33
cccgccccgac gtgcacgtga gcc 23

<210> 34
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 34
tgagccagcc caggaactgc ttg 23

<210> 35
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 35
caagtgcgtc gcaaccctt tggcatctat ggctccaaga aagccggat 50

<210> 36
<211> 1771
<212> DNA
<213> Homo Sapien

<400> 36
cccacgcgtc cgctgggtgtt agatcgagca accctctaaa agcagtttag 50

agtggtaaaa aaaaaaaaaa acacacccaaa cgctcgcagc cacaacccggg 100
atgaaatttc ttctggacat ctcctgctt ctcccggtac tgatcgctg 150
ctccctagag tccttcgtga agcttttat tcctaagagg agaaaatcag 200
tcaccggcga aatcggtctg attacaggag ctggcatgg aattgggaga 250
ctgactgcct atgaatttgc taaacttaaa agcaagctgg ttctctggg 300
tataaataag catggactgg aggaaacagc tgccaaatgc aagggactgg 350
tgcccaaggt tcataccttt gtggtagact gcagcaaccg agaagatatt 400
tacagctctg caaagaaggt gaaggcagaa attggagatg ttagtatttt 450
agtaaataat gctgggttag tctatacatc agatttggg 500
atcctcagat tgaaaagact tttgaagtta atgtacttgc acatttctgg 550
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tgtcaactgtg gcttcggcag ctggacatgt ctgcgtcccc ttcttactgg 650
cttactgttc aagcaagttt gctgctgtg gattcataa aactttgaca 700
gatgaactgg ctgccttaca aataactgga gtcaaaacaa catgtctgtg 750
tcctaatttc gtaaacactg gttcatcaa aaatccaagt acaagttgg 800
gacccactct ggaacctgag gaagtggtaa acaggctgat gcatgggatt 850
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aacattggaa aggatccttc ctgagcgtt cctggcagtt taaaacgaa 950
aaatcagtgt taagttgat gcagttattg gatataaaat gaaagcgc当地 1000
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aaaatttgc ccataaccgt ttatataaca tatatttttta ttttgattg 1350
cacttaaatt ttgtataatt tgggtttctt tttctgttct acataaaatc 1400
agaaacttca agctctctaa ataaaaatgaa ggactatatc tagtggatt 1450
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gccactctgt ttcctgagag atacctcaca ttccaatgcc aaacatttct 1550
gcacagggaa gctagaggtg gatacacgtg ttgcaagtat aaaagcatca 1600
ctgggattta aggagaattg agagaatgtc cccacaaatg gcagcaataa 1650
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aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1750
aaaaaaaaaa aaaaaaaaaa a 1771

<210> 37
<211> 300
<212> PRT
<213> Homo Sapien

<400> 37

Met	Lys	Phe	Leu	Leu	Asp	Ile	Leu	Leu	Leu	Pro	Leu	Leu	Ile	
1														15
Val	Cys	Ser	Leu	Glu	Ser	Phe	Val	Lys	Leu	Phe	Ile	Pro	Lys	Arg
														30
Arg	Lys	Ser	Val	Thr	Gly	Glu	Ile	Val	Leu	Ile	Thr	Gly	Ala	Gly
														45
His	Gly	Ile	Gly	Arg	Leu	Thr	Ala	Tyr	Glu	Phe	Ala	Lys	Leu	Lys
														60
Ser	Lys	Leu	Val	Leu	Trp	Asp	Ile	Asn	Lys	His	Gly	Leu	Glu	Glu
														75
Thr	Ala	Ala	Lys	Cys	Lys	Gly	Leu	Gly	Ala	Lys	Val	His	Thr	Phe
														90
Val	Val	Asp	Cys	Ser	Asn	Arg	Glu	Asp	Ile	Tyr	Ser	Ser	Ala	Lys
														105
Lys	Val	Lys	Ala	Glu	Ile	Gly	Asp	Val	Ser	Ile	Leu	Val	Asn	Asn
														120
Ala	Gly	Val	Val	Tyr	Thr	Ser	Asp	Leu	Phe	Ala	Thr	Gln	Asp	Pro
														135
Gln	Ile	Glu	Lys	Thr	Phe	Glu	Val	Asn	Val	Leu	Ala	His	Phe	Trp
														150
Thr	Thr	Lys	Ala	Phe	Leu	Pro	Ala	Met	Thr	Lys	Asn	Asn	His	Gly
														165
His	Ile	Val	Thr	Val	Ala	Ser	Ala	Ala	Gly	His	Val	Ser	Val	Pro
														180
Phe	Leu	Leu	Ala	Tyr	Cys	Ser	Ser	Lys	Phe	Ala	Ala	Val	Gly	Phe
														195
His	Lys	Thr	Leu	Thr	Asp	Glu	Leu	Ala	Ala	Leu	Gln	Ile	Thr	Gly

200 205 210
Val Lys Thr Thr Cys Leu Cys Pro Asn Phe Val Asn Thr Gly Phe
215 220 225
Ile Lys Asn Pro Ser Thr Ser Leu Gly Pro Thr Leu Glu Pro Glu
230 235 240
Glu Val Val Asn Arg Leu Met His Gly Ile Leu Thr Glu Gln Lys
245 250 255
Met Ile Phe Ile Pro Ser Ser Ile Ala Phe Leu Thr Thr Leu Glu
260 265 270
Arg Ile Leu Pro Glu Arg Phe Leu Ala Val Leu Lys Arg Lys Ile
275 280 285
Ser Val Lys Phe Asp Ala Val Ile Gly Tyr Lys Met Lys Ala Gln
290 295 300

<210> 38

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 38

ggtaaggca gaaattggag atg 23

<210> 39

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 39

atcccatgca tcagcctgtt tacc 24

<210> 40

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 40

gctggtag tctatacatc agattgttt gctacacaag atcctcag 48

<210> 41

<211> 1377

<212> DNA

<213> Homo Sapien

FOODS-082464650

<400> 41
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gaaccaggac tggggtgacg gcagggcagg gggcgctgg ccggggagaa 100
gcgcgggggc tggagcacca ccaactggag ggtccggagt agcgagcgcc 150
ccgaaggagg ccatcgggga gccgggaggg gggactgcga gaggaccccg 200
gcgtccgggc tcccggtgcc agcgctatga ggccactcct cgtcctgctg 250
ctcctggcc tggcgccgg ctcgccccca ctggacgaca acaagatccc 300
cagcctctgc cggggcacc ccggccttcc aggcacgccc ggccaccatg 350
gcagccaggg cttgcccggc cgcgatggcc ggcacggccg cgacggcgcg 400
cccgggctc cgggagagaa aggcgagggc gggaggccgg gactgccggg 450
acctcgaggg gaccccgggc cgcgaggaga ggcgggaccc gcggggccca 500
ccgggcctgc cggggagtgc tcggtgccctc cgcgatccgc cttcagcgcc 550
aagcgctccg agagccgggt gcctccgccc tctgacgcac ctttgcctt 600
cgaccgcgtg ctggtaacg agcagggaca ttacgacgc gtcaccggca 650
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gcagtggctg gatttctgcc caagaccaga ggagtgtgt gtgctggcaa 1200
gtgttaagtcc cccagttgtctgggtccagg agcccacgggt ggggtgcct 1250
cttcctggtc ctctgcttc ctggatccctc cccacccct cctgctcctg 1300
ggggccggccc ttttctcaga gatcactcaa taaacctaag aaccctcata 1350
aaaaaaaaaaa aaaaaaaaaa aaaaaaaa 1377

<210> 42

<211> 243
<212> PRT
<213> Homo Sapien

<400> 42

Met	Arg	Pro	Leu	Leu	Val	Leu	Leu	Leu	Gly	Leu	Ala	Ala	Gly	
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Ser	Pro	Pro	Leu	Asp	Asp	Asn	Lys	Ile	Pro	Ser	Leu	Cys	Pro	Gly
			20				25					30		
His	Pro	Gly	Leu	Pro	Gly	Thr	Pro	Gly	His	His	Gly	Ser	Gln	Gly
			35				40					45		
Leu	Pro	Gly	Arg	Asp	Gly	Arg	Asp	Gly	Arg	Asp	Gly	Ala	Pro	Gly
			50				55					60		
Ala	Pro	Gly	Glu	Lys	Gly	Glu	Gly	Gly	Arg	Pro	Gly	Leu	Pro	Gly
			65				70					75		
Pro	Arg	Gly	Asp	Pro	Gly	Pro	Arg	Gly	Glu	Ala	Gly	Pro	Ala	Gly
			80				85					90		
Pro	Thr	Gly	Pro	Ala	Gly	Glu	Cys	Ser	Val	Pro	Pro	Arg	Ser	Ala
			95				100					105		
Phe	Ser	Ala	Lys	Arg	Ser	Glu	Ser	Arg	Val	Pro	Pro	Pro	Ser	Asp
			110				115					120		
Ala	Pro	Leu	Pro	Phe	Asp	Arg	Val	Leu	Val	Asn	Glu	Gln	Gly	His
			125				130					135		
Tyr	Asp	Ala	Val	Thr	Gly	Lys	Phe	Thr	Cys	Gln	Val	Pro	Gly	Val
			140				145					150		
Tyr	Tyr	Phe	Ala	Val	His	Ala	Thr	Val	Tyr	Arg	Ala	Ser	Leu	Gln
			155				160					165		
Phe	Asp	Leu	Val	Lys	Asn	Gly	Glu	Ser	Ile	Ala	Ser	Phe	Phe	Gln
			170				175					180		
Phe	Phe	Gly	Gly	Trp	Pro	Lys	Pro	Ala	Ser	Leu	Ser	Gly	Gly	Ala
			185				190					195		
Met	Val	Arg	Leu	Glu	Pro	Glu	Asp	Gln	Val	Trp	Val	Gln	Val	Gly
			200				205					210		
Val	Gly	Asp	Tyr	Ile	Gly	Ile	Tyr	Ala	Ser	Ile	Lys	Thr	Asp	Ser
			215				220					225		
Thr	Phe	Ser	Gly	Phe	Leu	Val	Tyr	Ser	Asp	Trp	His	Ser	Ser	Pro
			230				235					240		
Val	Phe	Ala												

<210> 43
<211> 24

FOUR EIGHT ONE FIVE EIGHT ONE FIVE

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 43
 tacaggccca gtcaggacca gggg 24

<210> 44
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 44
 agccagcctc gctctcg 18

<210> 45
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 45
 gtctgcgatc aggtctgg 18

<210> 46
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 46
 gaaagaggca atggattcgc 20

<210> 47
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 47
 gacttacact tgccagcaca gcac 24

<210> 48
<211> 45
<212> DNA
<213> Artificial Sequence

ggacatcctc gccttctatc tggccgcct ggagaccacc aacgaggtga 1200
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accgccaagg actccttccg ctgggccaca ggggagcacc aggccttcac 1300
cagtttgcc tttggcagc ctgacaacca cgggctggtg tggctgagtg 1350
ctgcccattggg gtttgcaac tgcgtggagc tgcaggcttc agctgccttc 1400
aactggaacg accagcgctg caaaaacccga aaccgttaca tctgccagtt 1450
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catggctccc tcgcctgccc tgggagcacc ggctctgctt acctgtctgc 1550
ccacctgtct ggaacaaggg ccaggttaag accacatgcc tcatgtccaa 1600
agaggtctca gaccttgcac aatgccagaa gttgggcaga gagaggcagg 1650
gaggccagtg agggccaggg agtgagtgtt agaagaagct gggcccttc 1700
gcctgcttt gattggaaag atgggcttca attagatggc gaaggagagg 1750
acaccgcccag tggtccaaaa aggctgctct cttccacctg gcccagaccc 1800
tgtggggcag cggagcttcc ctgtggcatg aaccccacgg ggtattaaat 1850
tatgaatcag ctgaaaaaaaaaaaaa 1876

<210> 50
<211> 455
<212> PRT
<213> Homo Sapien

<400> 50
Met Leu His Pro Glu Thr Ser Pro Gly Arg Gly His Leu Leu Ala
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Val Leu Leu Ala Leu Leu Gly Thr Thr Trp Ala Glu Val Trp Pro
20 25 30
Pro Gln Leu Gln Glu Gln Ala Pro Met Ala Gly Ala Leu Asn Arg
35 40 45
Lys Glu Ser Phe Leu Leu Leu Ser Leu His Asn Arg Leu Arg Ser
50 55 60
Trp Val Gln Pro Pro Ala Ala Asp Met Arg Arg Leu Asp Trp Ser
65 70 75
Asp Ser Leu Ala Gln Leu Ala Gln Ala Arg Ala Ala Leu Cys Gly
80 85 90
Ile Pro Thr Pro Ser Leu Ala Ser Gly Leu Trp Arg Thr Leu Gln
95 100 105
Val Gly Trp Asn Met Gln Leu Leu Pro Ala Gly Leu Ala Ser Phe

110	115	120
Val Glu Val Val Ser Leu Trp Phe Ala Glu Gly Gln Arg Tyr Ser		
125	130	135
His Ala Ala Gly Glu Cys Ala Arg Asn Ala Thr Cys Thr His Tyr		
140	145	150
Thr Gln Leu Val Trp Ala Thr Ser Ser Gln Leu Gly Cys Gly Arg		
155	160	165
His Leu Cys Ser Ala Gly Gln Thr Ala Ile Glu Ala Phe Val Cys		
170	175	180
Ala Tyr Ser Pro Gly Gly Asn Trp Glu Val Asn Gly Lys Thr Ile		
185	190	195
Ile Pro Tyr Lys Lys Gly Ala Trp Cys Ser Leu Cys Thr Ala Ser		
200	205	210
Val Ser Gly Cys Phe Lys Ala Trp Asp His Ala Gly Gly Leu Cys		
215	220	225
Glu Val Pro Arg Asn Pro Cys Arg Met Ser Cys Gln Asn His Gly		
230	235	240
Arg Leu Asn Ile Ser Thr Cys His Cys His Cys Pro Pro Gly Tyr		
245	250	255
Thr Gly Arg Tyr Cys Gln Val Arg Cys Ser Leu Gln Cys Val His		
260	265	270
Gly Arg Phe Arg Glu Glu Glu Cys Ser Cys Val Cys Asp Ile Gly		
275	280	285
Tyr Gly Gly Ala Gln Cys Ala Thr Lys Val His Phe Pro Phe His		
290	295	300
Thr Cys Asp Leu Arg Ile Asp Gly Asp Cys Phe Met Val Ser Ser		
305	310	315
Glu Ala Asp Thr Tyr Tyr Arg Ala Arg Met Lys Cys Gln Arg Lys		
320	325	330
Gly Gly Val Leu Ala Gln Ile Lys Ser Gln Lys Val Gln Asp Ile		
335	340	345
Leu Ala Phe Tyr Leu Gly Arg Leu Glu Thr Thr Asn Glu Val Thr		
350	355	360
Asp Ser Asp Phe Glu Thr Arg Asn Phe Trp Ile Gly Leu Thr Tyr		
365	370	375
Lys Thr Ala Lys Asp Ser Phe Arg Trp Ala Thr Gly Glu His Gln		
380	385	390
Ala Phe Thr Ser Phe Ala Phe Gly Gln Pro Asp Asn His Gly Leu		
395	400	405

Val Trp Leu Ser Ala Ala Met Gly Phe Gly Asn Cys Val Glu Leu
410 415 420
Gln Ala Ser Ala Ala Phe Asn Trp Asn Asp Gln Arg Cys Lys Thr
425 430 435
Arg Asn Arg Tyr Ile Cys Gln Phe Ala Gln Glu His Ile Ser Arg
440 445 450
Trp Gly Pro Gly Ser
455

<210> 51

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 51

aggaacttct ggatcgggct cacc 24

□ <210> 52

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 52

gggtctgggc caggtggaag agag 24

□ <210> 53

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 53

gccaaggact cttccgctg ggccacaggg gagcaccagg cttc 45

□ <210> 54

<211> 2331

<212> DNA

<213> Homo Sapien

<400> 54

cgacgcgtg ggctgggcgc tgcaaagcgt gtccgcgg gtccccgagc 50

gtccgcggcc ctcgccccgc catgctcctg ctgctgggc tgtgcctggg 100

gctgtccctg tgtgtgggt cgcatgaaaga ggccacagac tggggccact 150

cttcggagca ggatggactc agggtccca ggcaagtcag actgttgcag 200

aggctgaaaa ccaaaccctt gatgacagaaa ttctcagtga agtctaccat 250
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cttctgaaga ccaggacatt gagttccaga tgcaagattcc agctgcagct 350
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ggagcttctg cagaggcgcc tggcaagta cgacacagc atcagcgtgc 600
ggccccagca gctgtccggg aggctgagcg tggacgtgaa tattcctggag 650
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gaggggcagt gggcgcgggg aagatgattc tgggcctccc ccatctactg 750
tcattaacca aaatgaaaca tttgccaaca taattttaa acctactgta 800
gtacaacaag ccaggattgc ccagaatgga attttggag actttatcat 850
tagatatgac gtcaatagag aacagagcat tggggacatc caggttctaa 900
atggctattt tgtcaactac tttgctccta aagaccttcc tcctttaccc 950
aagaatgtgg tattcgtgct tgacagcagt gcttctatgg tgggaaccaa 1000
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aaggaccact tgatatcagt cactccagac agcatcaggg atggaaagt 1150
gtacattcac catatgtcac ccactggagg cacagacatc aacggggccc 1200
tgcagagggc catcaggctc ctcaacaagt acgtggccca cagtggcatt 1250
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ggtcggggag acgcacaccc tcaagatcct caacaacacc cgagaggccg 1350
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gagctaccgc ttcctcaactc cttcacctc catgaagctg agggggccgg 1950
tcccacgcat ggtatggcctg gaggaggccc acggcatgtc ggctgccatg 2000
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aaaaaaagaca tgggagagat ggtgttttc ctctccacca cctgggata 2150
cgatgagaag atggccacct gcaagccagg aagacggccc tcaccagaca 2200
ccatgtctgc tggcaccttg atcttgacc tcccagcctc cagaactgtg 2250
agaaataaat gtgtttgtt taagctaaaa aaaaaaaaaa aaaaaaaaaa 2300
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa a 2331

<210> 55
<211> 694
<212> PRT
<213> Homo Sapien

<400> 55
Met Leu Leu Leu Leu Gly Leu Cys Leu Gly Leu Ser Leu Cys Val
1 5 10 15
Gly Ser Gln Glu Glu Ala Gln Ser Trp Gly His Ser Ser Glu Gln
20 25 30
Asp Gly Leu Arg Val Pro Arg Gln Val Arg Leu Leu Gln Arg Leu
35 40 45
Lys Thr Lys Pro Leu Met Thr Glu Phe Ser Val Lys Ser Thr Ile
50 55 60
Ile Ser Arg Tyr Ala Phe Thr Thr Val Ser Cys Arg Met Leu Asn
65 70 75
Arg Ala Ser Glu Asp Gln Asp Ile Glu Phe Gln Met Gln Ile Pro
80 85 90
Ala Ala Ala Phe Ile Thr Asn Phe Thr Met Leu Ile Gly Asp Lys
95 100 105
Val Tyr Gln Gly Glu Ile Thr Glu Arg Glu Lys Lys Ser Gly Asp
110 115 120

Arg Val Lys Glu Lys Arg Asn Lys Thr Thr Glu Glu Asn Gly Glu
 125 130 135
 Lys Gly Thr Glu Ile Phe Arg Ala Ser Ala Val Ile Pro Ser Lys
 140 145 150
 Asp Lys Ala Ala Phe Phe Leu Ser Tyr Glu Glu Leu Leu Gln Arg
 155 160 165
 Arg Leu Gly Lys Tyr Glu His Ser Ile Ser Val Arg Pro Gln Gln
 170 175 180
 Leu Ser Gly Arg Leu Ser Val Asp Val Asn Ile Leu Glu Ser Ala
 185 190 195
 Gly Ile Ala Ser Leu Glu Val Leu Pro Leu His Asn Ser Arg Gln
 200 205 210
 Arg Gly Ser Gly Arg Gly Glu Asp Asp Ser Gly Pro Pro Pro Ser
 215 220 225
 Thr Val Ile Asn Gln Asn Glu Thr Phe Ala Asn Ile Ile Phe Lys
 230 235 240
 Pro Thr Val Val Gln Gln Ala Arg Ile Ala Gln Asn Gly Ile Leu
 245 250 255
 Gly Asp Phe Ile Ile Arg Tyr Asp Val Asn Arg Glu Gln Ser Ile
 260 265 270
 Gly Asp Ile Gln Val Leu Asn Gly Tyr Phe Val His Tyr Phe Ala
 275 280 285
 Pro Lys Asp Leu Pro Pro Leu Pro Lys Asn Val Val Phe Val Leu
 290 295 300
 Asp Ser Ser Ala Ser Met Val Gly Thr Lys Leu Arg Gln Thr Lys
 305 310 315
 Asp Ala Leu Phe Thr Ile Leu His Asp Leu Arg Pro Gln Asp Arg
 320 325 330
 Phe Ser Ile Ile Gly Phe Ser Asn Arg Ile Lys Val Trp Lys Asp
 335 340 345
 His Leu Ile Ser Val Thr Pro Asp Ser Ile Arg Asp Gly Lys Val
 350 355 360
 Tyr Ile His His Met Ser Pro Thr Gly Gly Thr Asp Ile Asn Gly
 365 370 375
 Ala Leu Gln Arg Ala Ile Arg Leu Leu Asn Lys Tyr Val Ala His
 380 385 390
 Ser Gly Ile Gly Asp Arg Ser Val Ser Leu Ile Val Phe Leu Thr
 395 400 405
 Asp Gly Lys Pro Thr Val Gly Glu Thr His Thr Leu Lys Ile Leu

410

415

420

Asn Asn Thr Arg Glu Ala Ala Arg Gly Gln Val Cys Ile Phe Thr
 425 430 435

Ile Gly Ile Gly Asn Asp Val Asp Phe Arg Leu Leu Glu Lys Leu
 440 445 450

Ser Leu Glu Asn Cys Gly Leu Thr Arg Arg Val His Glu Glu Glu
 455 460 465

Asp Ala Gly Ser Gln Leu Ile Gly Phe Tyr Asp Glu Ile Arg Thr
 470 475 480

Pro Leu Leu Ser Asp Ile Arg Ile Asp Tyr Pro Pro Ser Ser Val
 485 490 495

Val Gln Ala Thr Lys Thr Leu Phe Pro Asn Tyr Phe Asn Gly Ser
 500 505 510

Glu Ile Ile Ile Ala Gly Lys Leu Val Asp Arg Lys Leu Asp His
 515 520 525

Leu His Val Glu Val Thr Ala Ser Asn Ser Lys Lys Phe Ile Ile
 530 535 540

Leu Lys Thr Asp Val Pro Val Arg Pro Gln Lys Ala Gly Lys Asp
 545 550 555

Val Thr Gly Ser Pro Arg Pro Gly Gly Asp Gly Glu Gly Asp Thr
 560 565 570

Asn His Ile Glu Arg Leu Trp Ser Tyr Leu Thr Thr Lys Glu Leu
 575 580 585

Leu Ser Ser Trp Leu Gln Ser Asp Asp Glu Pro Glu Lys Glu Arg
 590 595 600

Leu Arg Gln Arg Ala Gln Ala Leu Ala Val Ser Tyr Arg Phe Leu
 605 610 615

Thr Pro Phe Thr Ser Met Lys Leu Arg Gly Pro Val Pro Arg Met
 620 625 630

Asp Gly Leu-Glu Glu Ala His Gly Met Ser Ala Ala Met Gly Pro
 635 640 645

Glu Pro Val Val Gln Ser Val Arg Gly Ala Gly Thr Gln Pro Gly
 650 655 660

Pro Leu Leu Lys Lys Pro Asn Ser Val Lys Lys Lys Gln Asn Lys
 665 670 675

Thr Lys Lys Arg His Gly Arg Asp Gly Val Phe Pro Leu His His
 680 685 690

Leu Gly Ile Arg

<210> 56
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 56
gtgggaacca aactccggca gacc 24

<210> 57
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 57
cacatcgagg gtctctgg 18

<210> 58
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 58
agccgctcct tctccgggttc atcg 24

<210> 59
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 59
tggaaaggacc acttgatatac agtcactcca gacagcatca gggatggg 48

<210> 60
<211> 1413
<212> DNA
<213> Homo Sapien

<400> 60
cggacgcgtg ggggtgcccga catggcgagt gtagtgctgc cgagcggatc 50
ccagtgtgcg gcggcagcgg cggcggcggc gcctcccccggg ctccggcttc 100
tgctgttgct cttctccgccc gcggcactga tccccacagg ttagtggcag 150
aatctgttta cgaaagacgt gacagtgate gagggagagg ttgcgaccat 200

cagttgccaa gtcataaga gtgacgactc tgtgattcag ctactgaatc 250
ccaacaggca gaccattat ttcagggact tcaggcctt gaaggacagc 300
aggttcagt tgctgaattt ttcttagcgt gaactcaaag tatcattgac 350
aaacgtctca atttctgatg aaggaagata ctttgccag ctctataccg 400
atcccccaca ggaaagttac accaccatca cagtcctggt cccaccacgt 450
aatctgatga tcgatatacca gaaagacact gcggtgaaag gtgaggagat 500
tgaagtcaac tgcactgcta tggccagcaa gccagccacg actatcaggt 550
ggttcaaagg gaacacagag ctaaaaggca aatcgaggat ggaagagtgg 600
tcagacatgt acactgtgac cagtcagctg atgctgaagg tgcacaagga 650
ggacgatggg gtcccagtga tctgccaggt ggagcacccct gcggtcactg 700
gaaacctgca gacccagcgg tatctagaag tacagtataa gcctcaagtg 750
cacattcaga tgacttatcc tctacaaggc ttaaccggg aaggggacgc 800
gctttagtta acatgtgaag ccatcggaa gccccagccct gtgatggtaa 850
cttgggtgag agtcgatgat gaaatgcctc aacacgcccgt actgtctggg 900
cccaacctgt tcatcaataa cctaaacaaa acagataatg gtacataccg 950
ctgtgaagct tcaaacatag tggggaaagc tcactcggat tatatgctgt 1000
atgtatacga tccccccaca actatccctc ctcccacaac aaccaccacc 1050
accaccacca ccaccaccac caccatcctt accatcatca cagattcccg 1100
agcaggtgaa gaaggctcgta tcagggcagt ggatcatgcc gtgatcggtg 1150
gcgtcggtgc ggtgggtgt ttcgccatgc tgtgcttgct catcattctg 1200
ggcgcattt ttgccagaca taaaggtaca tacttcactc atgaagccaa 1250
aggagccgat gacgcagcag acgcagacac agctataatc aatgcagaag 1300
gaggacagaa caactccgaa gaaaagaaaag agtacttcat ctagatcagc 1350
cttttgttt caatgaggtg tccaaactggc cctatttaga tgataaagag 1400
acagtgatata tgg 1413

<210> 61
<211> 440
<212> PRT
<213> Homo Sapien

<400> 61
Met Ala Ser Val Val Leu Pro Ser Gly Ser Gln Cys Ala Ala Ala
1 5 10 15

Ala Ala Ala Ala Ala Pro Pro Gly Leu Arg Leu Leu Leu Leu
 20 25 30
 Phe Ser Ala Ala Ala Leu Ile Pro Thr Gly Asp Gly Gln Asn Leu
 35 40 45
 Phe Thr Lys Asp Val Thr Val Ile Glu Gly Glu Val Ala Thr Ile
 50 55 60
 Ser Cys Gln Val Asn Lys Ser Asp Asp Ser Val Ile Gln Leu Leu
 65 70 75
 Asn Pro Asn Arg Gln Thr Ile Tyr Phe Arg Asp Phe Arg Pro Leu
 80 85 90
 Lys Asp Ser Arg Phe Gln Leu Leu Asn Phe Ser Ser Ser Glu Leu
 95 100 105
 Lys Val Ser Leu Thr Asn Val Ser Ile Ser Asp Glu Gly Arg Tyr
 110 115 120
 Phe Cys Gln Leu Tyr Thr Asp Pro Pro Gln Glu Ser Tyr Thr Thr
 125 130 135
 Ile Thr Val Leu Val Pro Pro Arg Asn Leu Met Ile Asp Ile Gln
 140 145 150
 Lys Asp Thr Ala Val Glu Gly Glu Glu Ile Glu Val Asn Cys Thr
 155 160 165
 Ala Met Ala Ser Lys Pro Ala Thr Thr Ile Arg Trp Phe Lys Gly
 170 175 180
 Asn Thr Glu Leu Lys Gly Lys Ser Glu Val Glu Glu Trp Ser Asp
 185 190 195
 Met Tyr Thr Val Thr Ser Gln Leu Met Leu Lys Val His Lys Glu
 200 205 210
 Asp Asp Gly Val Pro Val Ile Cys Gln Val Glu His Pro Ala Val
 215 220 225
 Thr Gly Asn Leu Gln Thr Gln Arg Tyr Leu Glu Val Gln Tyr Lys
 230 235 240
 Pro Gln Val His Ile Gln Met Thr Tyr Pro Leu Gln Gly Leu Thr
 245 250 255
 Arg Glu Gly Asp Ala Leu Glu Leu Thr Cys Glu Ala Ile Gly Lys
 260 265 270
 Pro Gln Pro Val Met Val Thr Trp Val Arg Val Asp Asp Glu Met
 275 280 285
 Pro Gln His Ala Val Leu Ser Gly Pro Asn Leu Phe Ile Asn Asn
 290 295 300
 Leu Asn Lys Thr Asp Asn Gly Thr Tyr Arg Cys Glu Ala Ser Asn

305	310	315
Ile Val Gly Lys Ala His Ser Asp Tyr Met Leu Tyr Val Tyr Asp		
320	325	330
Pro Pro Thr Thr Ile Pro Pro Pro Thr Thr Thr Thr Thr Thr		
335	340	345
Thr Thr Thr Thr Thr Ile Leu Thr Ile Ile Thr Asp Ser Arg		
350	355	360
Ala Gly Glu Glu Gly Ser Ile Arg Ala Val Asp His Ala Val Ile		
365	370	375
Gly Gly Val Val Ala Val Val Val Phe Ala Met Leu Cys Leu Leu		
380	385	390
Ile Ile Leu Gly Arg Tyr Phe Ala Arg His Lys Gly Thr Tyr Phe		
395	400	405
Thr His Glu Ala Lys Gly Ala Asp Asp Ala Ala Asp Ala Asp Thr		
410	415	420
Ala Ile Ile Asn Ala Glu Gly Gln Asn Asn Ser Glu Glu Lys		
425	430	435
Lys Glu Tyr Phe Ile		
440		

<210> 62
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 62
 ggcttctgct gttgctcttc tccg 24

<210> 63
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 63
 gtacactgtg accagtcagc 20

<210> 64
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 64
atcatcacag attcccgagc 20

<210> 65
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 65
ttcaatctcc tcacaccttcca ccgc 24

<210> 66
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 66
atagctgtgt ctgcgtctgc tgcg 24

<210> 67
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 67
cgccggcactg atccccacag gtgatgggca gaatctgttt acgaaagacg 50

<210> 68
<211> 2555
<212> DNA
<213> Homo Sapien

<400> 68
ggggcgggtg gacgcggact cgaacgcagt tgcttcggga cccaggaccc 50
cctcgggccc gacccgccag gaaagactga ggccgcggcc tgccccgccc 100
ggctccctgc gccgcgcgcg cctccggga cagaagatgt gctccagggt 150
ccctctgctg ctgccgctgc tcctgctact ggccctgggg cctggggtgc 200
agggctgccc atccggctgc cagtgcagcc agccacagac agtcttctgc 250
actgccccgcc aggggaccac ggtgccccga gacgtgccac ccgacacgg 300
ggggctgtac gtcttgaga acggcatcac catgctcgac gcaaggcagct 350
ttgccggcct gccgggcctg cagtcctgg acctgtcaca gaaccagatc 400

gccagcctgc gcctgccccg cctgctgctg ctggaccta gccacaacag 450
cctcctggcc ctggagccccg gcatacctgga cactgccaac gtggaggcgc 500
tgccggctggc tggctctgggg ctgcagcagc tggacgaggg gctcttcagc 550
cgcttgcgca acctccacga cctggatgtg tccgacaacc agctggagcg 600
agtgccacct gtgatccgag gcctccgggg cctgacgcgc ctgcggctgg 650
ccggcaacac ccgcattgcc cagctgcggc ccgaggacct ggccggcctg 700
gctgccctgc aggagctgga tgtgagcaac ctaagcctgc aggccctgcc 750
tggcgaccc tcgggcctct tcccccgct gcggctgctg gcagctgccc 800
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cccgcccaag aacgctggcc ggctgctcct ggagcttgac tacgcccact 950
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tgcctcaatg ggggcacatg ccacctgggg acacggcacc acctggcgtg 1200
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aggggacacg gcccagccct acaccagtca cggcggacc accacggtcc 1300
ctgaccctgg gcatcgagcc ggtgagcccc acctccctgc gcgtgggct 1350
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gccccagtcg cccaggcccc cgagggcaac ctgcccgtcc tcattgcgcc 1650
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cttggagcca ggcccgaaagg caacagaggg cgggtggagag gcccctgccc 1850

gcgggtctga gtgtgagggtg ccactcatgg gcttcccagg gcctggcctc 1900
cagtcacccc tccacgcaaa gcctacatc taagccagag agagacaggg 1950
cagctggggc cgggctctca gccagtgaga tggccagccc cctcctgctg 2000
ccacaccacg taagttctca gtcccaacct cggggatgtg tgcagacagg 2050
gctgtgtgac cacagctggg ccctgttccc tctggacctc ggtctcctca 2100
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gggcacggcg ggcctgcca tgtgctggta acgcatgcct gggccctgct 2250
gggctctccc actccaggcg gaccctgggg gccagtgaag gaagctcccg 2300
gaaagagcag agggagagcg gtaggcggc tgtgtgactc tagtcttggc 2350
cccaggaagc gaaggaacaa aagaaactgg aaaggaagat gctttaggaa 2400
catgtttgc tttttaaaa tatatatata tttataagag atcctttccc 2450
atttattctg ggaagatgtt tttcaaactc agagacaagg actttggttt 2500
ttgtaagaca aacgatgata tgaaggcctt ttgtaagaaa aaataaaaaaa 2550
aaaaaa 2555

<210> 69
<211> 598
<212> PRT
<213> Homo Sapien

<400> 69
Met Cys Ser Arg Val Pro Leu Leu Leu Pro Leu Leu Leu Leu
1 5 10 15
Ala Leu Gly Pro Gly Val Gln Gly Cys Pro Ser Gly Cys Gln Cys
20 25 30
Ser Gln Pro Gln Thr Val Phe Cys Thr Ala Arg Gln Gly Thr Thr
35 40 45
Val Pro Arg Asp Val Pro Pro Asp Thr Val Gly Leu Tyr Val Phe
50 55 60
Glu Asn Gly Ile Thr Met Leu Asp Ala Ser Ser Phe Ala Gly Leu
65 70 75
Pro Gly Leu Gln Leu Leu Asp Leu Ser Gln Asn Gln Ile Ala Ser
80 85 90
Leu Arg Leu Pro Arg Leu Leu Leu Asp Leu Ser His Asn Ser
95 100 105
Leu Leu Ala Leu Glu Pro Gly Ile Leu Asp Thr Ala Asn Val Glu

100 90 80 70 60 50 40 30 20 10

110

115

120

Ala Leu Arg Leu Ala Gly Leu Gly Leu Gln Gln Leu Asp Glu Gly
125 130 135

Leu Phe Ser Arg Leu Arg Asn Leu His Asp Leu Asp Val Ser Asp
140 145 150

Asn Gln Leu Glu Arg Val Pro Pro Val Ile Arg Gly Leu Arg Gly
155 160 165

Leu Thr Arg Leu Arg Leu Ala Gly Asn Thr Arg Ile Ala Gln Leu
170 175 180

Arg Pro Glu Asp Leu Ala Gly Leu Ala Ala Leu Gln Glu Leu Asp
185 190 195

Val Ser Asn Leu Ser Leu Gln Ala Leu Pro Gly Asp Leu Ser Gly
200 205 210

Leu Phe Pro Arg Leu Arg Leu Leu Ala Ala Ala Arg Asn Pro Phe
215 220 225

Asn Cys Val Cys Pro Leu Ser Trp Phe Gly Pro Trp Val Arg Glu
230 235 240

Ser His Val Thr Leu Ala Ser Pro Glu Glu Thr Arg Cys His Phe
245 250 255

Pro Pro Lys Asn Ala Gly Arg Leu Leu Leu Glu Leu Asp Tyr Ala
260 265 270

Asp Phe Gly Cys Pro Ala Thr Thr Thr Ala Thr Val Pro Thr
275 280 285

Thr Arg Pro Val Val Arg Glu Pro Thr Ala Leu Ser Ser Ser Leu
290 295 300

Ala Pro Thr Trp Leu Ser Pro Thr Ala Pro Ala Thr Glu Ala Pro
305 310 315

Ser Pro Pro Ser Thr Ala Pro Pro Thr Val Gly Pro Val Pro Gln
320 325 330

Pro Gln Asp Cys Pro Pro Ser Thr Cys Leu Asn Gly Gly Thr Cys
335 340 345

His Leu Gly Thr Arg His His Leu Ala Cys Leu Cys Pro Glu Gly
350 355 360

Phe Thr Gly Leu Tyr Cys Glu Ser Gln Met Gly Gln Gly Thr Arg
365 370 375

Pro Ser Pro Thr Pro Val Thr Pro Arg Pro Pro Arg Ser Leu Thr
380 385 390

Leu Gly Ile Glu Pro Val Ser Pro Thr Ser Leu Arg Val Gly Leu
395 400 405

Gln Arg Tyr Leu Gln Gly Ser Ser Val Gln Leu Arg Ser Leu Arg
410 415 420
Leu Thr Tyr Arg Asn Leu Ser Gly Pro Asp Lys Arg Leu Val Thr
425 430 435
Leu Arg Leu Pro Ala Ser Leu Ala Glu Tyr Thr Val Thr Gln Leu
440 445 450
Arg Pro Asn Ala Thr Tyr Ser Val Cys Val Met Pro Leu Gly Pro
455 460 465
Gly Arg Val Pro Glu Gly Glu Ala Cys Gly Glu Ala His Thr
470 475 480
Pro Pro Ala Val His Ser Asn His Ala Pro Val Thr Gln Ala Arg
485 490 495
Glu Gly Asn Leu Pro Leu Leu Ile Ala Pro Ala Leu Ala Ala Val
500 505 510
Leu Leu Ala Ala Leu Ala Ala Val Gly Ala Ala Tyr Cys Val Arg
515 520 525
Arg Gly Arg Ala Met Ala Ala Ala Ala Gln Asp Lys Gly Gln Val
530 535 540
Gly Pro Gly Ala Gly Pro Leu Glu Leu Glu Gly Val Lys Val Pro
545 550 555
Leu Glu Pro Gly Pro Lys Ala Thr Glu Gly Gly Glu Ala Leu
560 565 570
Pro Ser Gly Ser Glu Cys Glu Val Pro Leu Met Gly Phe Pro Gly
575 580 585
Pro Gly Leu Gln Ser Pro Leu His Ala Lys Pro Tyr Ile
590 595
<210> 70
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 70
ccctccactg ccccacccgac tg 22

<210> 71
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 71
cggttctggg gacgttaggg ctcg 24

<210> 72
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 72
ctgccccaccg tccacactgcc tcaat 25

<210> 73
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 73
aggactgcc accgtccacc tgcctcaatg ggggcacatg ccacc 45

<210> 74
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 74
acgcaaagcc ctacatctaa gccagagaga gacagggcag ctggg 45

<210> 75
<211> 1077
<212> DNA
<213> Homo Sapien

<400> 75
ggcacttagga caaccttctt cccttctgca ccactgccccg tacccttacc 50

ccccccgcca cctccttgct accccactct taaaaccaca gctgttgca 100

gggtccccag ctcatgccag cctcatctcc tttcttgcta gcccccaaag 150

ggcctccagg caacatgggg gccccagtca gagagccggc actctcagtt 200

gccctctggc tgagttgggg ggcagctctg gggccgtgg cttgtgccat 250

ggctctgtg acccaacaaa cagagctgca gagcctcagg agagaggtga 300

gccggctgca ggggacagga gccccctccc agaatgggaa agggtatccc 350

tggcagagtc tcccgagca gagttccgat gccctggaag cctgggagaa 400

1000 900 800 700 600 500 400 300 200 100

tggggagaga tccccgaaaa ggagagcagt gtcacccaa aaacagaaga 450
agcagcactc tgtcctgcac ctgggtccca ttaacgccac ctccaaggat 500
gactccgatg tgacagaggt gatgtggcaa ccagctctt ggcgtggag 550
aggcctacag gcccaaggat atggtgtccg aatccaggat gctggagttt 600
atctgctgta tagccaggtc ctgtttcaag acgtgacttt caccatgggt 650
caggtggtgt ctcgagaagg ccaaggaagg caggagactc tattccgatg 700
tataagaagt atgcctccc acccggaccg ggcctacaac agctgctata 750
gcgcaggtgt cttccattta caccaagggg atattctgag tgtcataatt 800
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gtttgtgaaa ctgtgattgt gttataaaaa gtggctccca gcttggaaga 900
ccagggtggg tacatactgg agacagccaa gagctgagta tataaaggag 950
aggaatgtg caggaacaga ggcatttcc tgggttggc tccccgttcc 1000
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<210> 76
<211> 250
<212> PRT
<213> Homo Sapien

<400> 76
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Gly Asn Met Gly Gly Pro Val Arg Glu Pro Ala Leu Ser Val Ala
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Leu Trp Leu Ser Trp Gly Ala Ala Leu Gly Ala Val Ala Cys Ala
35 40 45
Met Ala Leu Leu Thr Gln Gln Thr Glu Leu Gln Ser Leu Arg Arg
50 55 60
Glu Val Ser Arg Leu Gln Gly Thr Gly Gly Pro Ser Gln Asn Gly
65 70 75
Glu Gly Tyr Pro Trp Gln Ser Leu Pro Glu Gln Ser Ser Asp Ala
80 85 90
Leu Glu Ala Trp Glu Asn Gly Glu Arg Ser Arg Lys Arg Arg Ala
95 100 105
Val Leu Thr Gln Lys Gln Lys Gln His Ser Val Leu His Leu
110 115 120

Val Pro Ile Asn Ala Thr Ser Lys Asp Asp Ser Asp Val Thr Glu
125 130 135
Val Met Trp Gln Pro Ala Leu Arg Arg Gly Arg Gly Leu Gln Ala
140 145 150
Gln Gly Tyr Gly Val Arg Ile Gln Asp Ala Gly Val Tyr Leu Leu
155 160 165
Tyr Ser Gln Val Leu Phe Gln Asp Val Thr Phe Thr Met Gly Gln
170 175 180
Val Val Ser Arg Glu Gly Gln Gly Arg Gln Glu Thr Leu Phe Arg
185 190 195
Cys Ile Arg Ser Met Pro Ser His Pro Asp Arg Ala Tyr Asn Ser
200 205 210
Cys Tyr Ser Ala Gly Val Phe His Leu His Gln Gly Asp Ile Leu
215 220 225
Ser Val Ile Ile Pro Arg Ala Arg Ala Lys Leu Asn Leu Ser Pro
230 235 240
His Gly Thr Phe Leu Gly Phe Val Lys Leu
245 250

<210> 77
<211> 2849
<212> DNA
<213> Homo Sapien

<400> 77
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gaagatgggc tcccgtggac agggacttt gctggcgtac tgcctgctcc 350
ttgcctttgc ctctggcctg gtcctgagtc gtgtgccccca tgtccaggg 400
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tgccgagagg gctgaagaac aacatgaaaa atacaggccc agtcaggacc 500
aggggctccc tgcttccgg tgcttgcgt gctgtgaccc cggtacacctcc 550
atgtacccgg cgaccgcgt gccccagatc aacatcacta tcttgaagg 600
ggagaagggt gaccgcggag atcgaggcct ccaaggaaaa tatggcaaaa 650

caggctcagc aggggccagg ggccacactg gacccaaagg gcagaaggc 700
tccatggggg cccctgggg a cggtgcaag agccactacg ccgcctttc 750
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tcttcgacac ggagttcgtg aacctctacg accacttcaa catgttcacc 850
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<210> 78

<211> 281

<212> PRT

<213> Homo Sapien

<400> 78

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Leu Ala Phe Ala Ser Gly Leu Val Leu Ser Arg Val Pro His Val
20 25 30

Gln Gly Glu Gln Gln Glu Trp Glu Gly Thr Glu Glu Leu Pro Ser
35 40 45

Pro Pro Asp His Ala Glu Arg Ala Glu Glu Gln His Glu Lys Tyr
50 55 60

Arg Pro Ser Gln Asp Gln Gly Leu Pro Ala Ser Arg Cys Leu Arg
65 70 75

Cys Cys Asp Pro Gly Thr Ser Met Tyr Pro Ala Thr Ala Val Pro
80 85 90

Gln Ile Asn Ile Thr Ile Leu Lys Gly Glu Lys Gly Asp Arg Gly
95 100 105

Asp Arg Gly Leu Gln Gly Lys Tyr Gly Lys Thr Gly Ser Ala Gly

110 115 120

Ala Arg Gly His Thr Gly Pro Lys Gly Gln Lys Gly Ser Met Gly
125 130 135

Ala Pro Gly Glu Arg Cys Lys Ser His Tyr Ala Ala Phe Ser Val
140 145 150

Gly Arg Lys Lys Pro Met His Ser Asn His Tyr Tyr Gln Thr Val
155 160 165

Ile Phe Asp Thr Glu Phe Val Asn Leu Tyr Asp His Phe Asn Met
170 175 180

Phe Thr Gly Lys Phe Tyr Cys Tyr Val Pro Gly Leu Tyr Phe Phe
185 190 195

Ser Leu Asn Val His Thr Trp Asn Gln Lys Glu Thr Tyr Leu His
200 205 210

Ile Met Lys Asn Glu Glu Glu Val Val Ile Leu Phe Ala Gln Val
215 220 225

Gly Asp Arg Ser Ile Met Gln Ser Gln Ser Leu Met Leu Glu Leu
230 235 240

Arg Glu Gln Asp Gln Val Trp Val Arg Leu Tyr Lys Gly Glu Arg
245 250 255

Glu Asn Ala Ile Phe Ser Glu Glu Leu Asp Thr Tyr Ile Thr Phe
260 265 270

Ser Gly Tyr Leu Val Lys His Ala Thr Glu Pro
275 280

<210> 79
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 79
 tacaggccca gtcaggacca gggg 24

<210> 80
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 80
 ctgaagaagt agaggccggg cacg 24

<210> 81

<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 81
cccggtgctt gcgctgctgt gaccccggtt cctccatgtt cccgg 45

<210> 82
<211> 2284
<212> DNA
<213> Homo Sapien

<400> 82
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ggcgccgggg tcctctcgac gccagagaga aatctcatca tctgtgcagc 150
cttcttaaag caaactaaga ccagagggag gattatcctt gacctttgaa 200
gacccaaaact aaactgaaat taaaatgtt ctgcggggaa gaagggagct 250
tgacttacac tttggtaata atttgcttcc tgacactaag gctgtctgct 300
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YODNEED-DE2E4-6560

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<210> 83
<211> 431
<212> PRT
<213> Homo Sapien

<400> 83
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1 5 10 15

RECEIVED - 1982 SEP 16 1980

Ile Cys Phe Leu Thr Leu Arg Leu Ser Ala Ser Gln Asn Cys Leu
20 25 30
Lys Lys Ser Leu Glu Asp Val Val Ile Asp Ile Gln Ser Ser Leu
35 40 45
Ser Lys Gly Ile Arg Gly Asn Glu Pro Val Tyr Thr Ser Thr Gln
50 55 60
Glu Asp Cys Ile Asn Ser Cys Cys Ser Thr Lys Asn Ile Ser Gly
65 70 75
Asp Lys Ala Cys Asn Leu Met Ile Phe Asp Thr Arg Lys Thr Ala
80 85 90
Arg Gln Pro Asn Cys Tyr Leu Phe Phe Cys Pro Asn Glu Glu Ala
95 100 105
Cys Pro Leu Lys Pro Ala Lys Gly Leu Met Ser Tyr Arg Ile Ile
110 115 120
Thr Asp Phe Pro Ser Leu Thr Arg Asn Leu Pro Ser Gln Glu Leu
125 130 135
Pro Gln Glu Asp Ser Leu Leu His Gly Gln Phe Ser Gln Ala Val
140 145 150
Thr Pro Leu Ala His His His Thr Asp Tyr Ser Lys Pro Thr Asp
155 160 165
Ile Ser Trp Arg Asp Thr Leu Ser Gln Lys Phe Gly Ser Ser Asp
170 175 180
His Leu Glu Lys Leu Phe Lys Met Asp Glu Ala Ser Ala Gln Leu
185 190 195
Leu Ala Tyr Lys Glu Lys Gly His Ser Gln Ser Ser Gln Phe Ser
200 205 210
Ser Asp Gln Glu Ile Ala His Leu Leu Pro Glu Asn Val Ser Ala
215 220 225
Leu Pro Ala Thr Val Ala Val Ala Ser Pro His Thr Thr Ser Ala
230 235 240
Thr Pro Lys Pro Ala Thr Leu Leu Pro Thr Asn Ala Ser Val Thr
245 250 255
Pro Ser Gly Thr Ser Gln Pro Gln Leu Ala Thr Thr Ala Pro Pro
260 265 270
Val Thr Thr Val Thr Ser Gln Pro Pro Thr Thr Leu Ile Ser Thr
275 280 285
Val Phe Thr Arg Ala Ala Ala Thr Leu Gln Ala Met Ala Thr Thr
290 295 300
Ala Val Leu Thr Thr Phe Gln Ala Pro Thr Asp Ser Lys Gly

305	310	315
Ser Leu Glu Thr Ile Pro Phe Thr Glu Ile Ser Asn Leu Thr Leu		
320	325	330
Asn Thr Gly Asn Val Tyr Asn Pro Thr Ala Leu Ser Met Ser Asn		
335	340	345
Val Glu Ser Ser Thr Met Asn Lys Thr Ala Ser Trp Glu Gly Arg		
350	355	360
Glu Ala Ser Pro Gly Ser Ser Gln Gly Ser Val Pro Glu Asn		
365	370	375
Gln Tyr Gly Leu Pro Phe Glu Lys Trp Leu Leu Ile Gly Ser Leu		
380	385	390
Leu Phe Gly Val Leu Phe Leu Val Ile Gly Leu Val Leu Leu Gly		
395	400	405
Arg Ile Leu Ser Glu Ser Leu Arg Arg Lys Arg Tyr Ser Arg Leu		
410	415	420
Asp Tyr Leu Ile Asn Gly Ile Tyr Val Asp Ile		
425	430	
<210> 84		
<211> 30		
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<213> Artificial Sequence		
<220>		
<223> Synthetic oligonucleotide probe		
<400> 84		
agggaggatt atccttgacc tttgaagacc 30		
<210> 85		
<211> 18		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Synthetic oligonucleotide probe		
<400> 85		
gaagcaagtg cccagctc 18		
<210> 86		
<211> 18		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Synthetic oligonucleotide probe		
<400> 86		
cgggtccctg ctctttgg 18		

TOESEB = DEVE + 60

<210> 87
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 87
caccgtagct gggagcgcac tcac 24

<210> 88
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 88
agtgttaagtc aagctccc 18

<210> 89
<211> 49
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 89
gcttcctgac actaaggctg tctgctagtc agaattgcct caaaaagag 49

<210> 90
<211> 957
<212> DNA
<213> Homo Sapien

<400> 90
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cattccagat gcaccctgt ccagtgctgc ctatagcatc cgccatcg 150
gggagaggcc tgtcctcaaa gctccagtc ccaaaaggca aaaatgtgac 200
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aggtggcaga agcaagtacg ccaaaatctg ctttggaggat aacctactta 300
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aatccctgct cttcatggtg acctatgacg acgaaagcac aagactgaat 500

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tcccttccga aattcagaga gaaaagatca accactctga tgctaagaac 650
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aaaaaaaa 957

<210> 91
<211> 235
<212> PRT
<213> Homo Sapien

<400> 91
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Phe Ala Ser Leu Cys Ala Trp Tyr Ser Gly Tyr Leu Leu Ala Glu
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Leu Ile Pro Asp Ala Pro Leu Ser Ser Ala Ala Tyr Ser Ile Arg
35 40 45
Ser Ile Gly Glu Arg Pro Val Leu Lys Ala Pro Val Pro Lys Arg
50 55 60
Gln Lys Cys Asp His Trp Thr Pro Cys Pro Ser Asp Thr Tyr Ala
65 70 75
Tyr Arg Leu Leu Ser Gly Gly Arg Ser Lys Tyr Ala Lys Ile
80 85 90
Cys Phe Glu Asp Asn Leu Leu Met Gly Glu Gln Leu Gly Asn Val
95 100 105
Ala Arg Gly Ile Asn Ile Ala Ile Val Asn Tyr Val Thr Gly Asn
110 115 120
Val Thr Ala Thr Arg Cys Phe Asp Met Tyr Glu Gly Asp Asn Ser
125 130 135
Gly Pro Met Thr Lys Phe Ile Gln Ser Ala Ala Pro Lys Ser Leu
140 145 150
Leu Phe Met Val Thr Tyr Asp Asp Gly Ser Thr Arg Leu Asn Asn
155 160 165

Asp Ala Lys Asn Ala Ile Glu Ala Leu Gly Ser Lys Glu Ile Arg
170 175 180

Asn Met Lys Phe Arg Ser Ser Trp Val Phe Ile Ala Ala Lys Gly
185 190 195

Leu Glu Leu Pro Ser Glu Ile Gln Arg Glu Lys Ile Asn His Ser
200 205 210

Asp Ala Lys Asn Asn Arg Tyr Ser Gly Trp Pro Ala Glu Ile Gln
215 220 225

Ile Glu Gly Cys Ile Pro Lys Glu Arg Ser
230 235

<210> 92
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 92
aatgtgacca ctggactccc 20

<210> 93
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 93
aggcttggaa ctcccttc 18

<210> 94
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 94
aagattcttg agcgattcca gctg 24

<210> 95
<211> 47
<212> DNA
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<220>
<223> Synthetic oligonucleotide probe

<400> 95
aatccctgct cttcatggtg acctatgacg acgaaagcac aagactg 47

卷之三

<210> 96
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 96
ctcaagaagc acgcgtactg c 21

<210> 97
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 97
ccaacacctag cttccgcctc tacga 25

<210> 98
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 98
catccaggct cgccactg 18

<210> 99
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 99
tggcaaggaa tggAACAGT 20

<210> 100
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 100
atgctgccag acctgatcgc agaca 25

<210> 101
<211> 19
<212> DNA

FOUR EIGHT EIGHT ONE FIVE FIVE FIVE

<213> Artificial Sequence
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<223> Synthetic oligonucleotide probe
<400> 101
gggcagaaat ccagccact 19

<210> 102
<211> 18
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<220>
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<400> 102
cccttcgcct gcttttga 18

<210> 103
<211> 27
<212> DNA
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<220>
<223> Synthetic oligonucleotide probe
<400> 103
gccatctaat tgaagccat cttccca 27

<210> 104
<211> 19
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<220>
<223> Synthetic oligonucleotide probe
<400> 104
ctggcggtgt cctctcctt 19

<210> 105
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe
<400> 105
cctcggtctc ctcatctgtg a 21

<210> 106
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

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<223> Synthetic oligonucleotide probe

<400> 106
tgccccagct gacgagccct 20

<210> 107
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 107
ctcataggca ctcgggtctg g 21

<210> 108
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 108
tggctcccaag cttggaaga 19

<210> 109
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 109
cagctcttgg ctgtctccag tatgtaccca 30

<210> 110
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 110
gatgcctctg ttcctgcaca t 21

<210> 111
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 111

ggattctaat acgactcaact atagggctgc ccgcaacccc ttcaactg 48

<210> 112

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 112

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APPENDIX A

I hereby claim the benefit under Title 35, United States Code, §119(e) of any United States provisional applications listed below:

60/067,411 filed December 3, 1997;
60/069,334 filed December 11, 1997;
60/069335 filed December 11, 1997;
60/069,278 filed December 11, 1997;
60/069,425 filed December 12, 1997;
60/069,696 filed December 16, 1997;
60/069,694 filed December 16, 1997;
60/069,702 filed December 16, 1997;
60/069,870 filed December 17, 1997;
60/069,873 filed December 17, 1997;
60/068,017 filed December 18, 1997;
60/070,440 filed January 5, 1998;
60/074,086 filed February 9, 1998;
60/074,092 filed February 9, 1998;
60/075,945 filed February 25, 1998;
60/112,850 filed December 16, 1998;
60/113,296 filed December 22, 1998;
60/146,222 filed July 28, 1999.

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APPENDIX B

I hereby claim the benefit under Title 35, United States Code, §120 of any United States and PCT patent applications listed below:

PCT/US98/19330 filed September 16, 1998;

PCT/US98/25108 filed December 1, 1998;

09/216,021 filed December 16, 1998;

09/218,517 filed December 22, 1998;

09/254,311 filed March 3, 1999;

PCT/US99/12252 filed June 2, 1999;

PCT/US99/21090 filed September 15, 1999;

PCT/US99/28409 filed November 30, 1999;

PCT/US99/28313 filed November 30, 1999;

PCT/US99/28301 filed December 1, 1999;

PCT/US99/30095 filed December 16, 1999;

PCT/US00/03565 filed February 11, 2000;

PCT/US00/04414 filed February 22, 2000;

PCT/US00/05841 filed March 2, 2000;

PCT/US00/08439 filed March 30, 2000;

PCT/US00/14042 filed May 22, 2000;

PCT/US00/20710 filed July 28, 2000;

PCT/US00/32678 filed December 1, 2000;

PCT/US01/06520 filed February 28, 2001.